

ABSTRACT OF THE DISCLOSURE
METHOD FOR FORMING AN AQUEOUS CARBON BLACK DISPERSION

A method for forming an aqueous carbon black dispersion including providing a reaction mixture including carbon black having a DBP uptake of greater than 90cc/100g of the carbon black, a monovalent ion persulfate, an aqueous medium, and, in some embodiments, a strong acid; subjecting the reaction mixture to a first temperature of from 40 °C to 90 °C for from 2 hours to 24 hours; neutralizing the reaction mixture to a pH greater than 7.0, and, in certain embodiments, subjecting the neutralized reaction mixture to a second temperature of from 20 °C to 40 °C higher than the first temperature for from 2 hours to 12 hours is provided. In an alternative aspect carbon black having a particle diameter less than 18 nanometers in diameter and a DBP uptake of less than 70 cc/100g carbon black is provided. The aqueous carbon black dispersion so formed and an aqueous inkjet ink containing the aqueous carbon black dispersion are also provided.